

**"An idea that is developed and  
put into action is more important  
than an idea that exists only as  
an idea."**

- *Buddha*



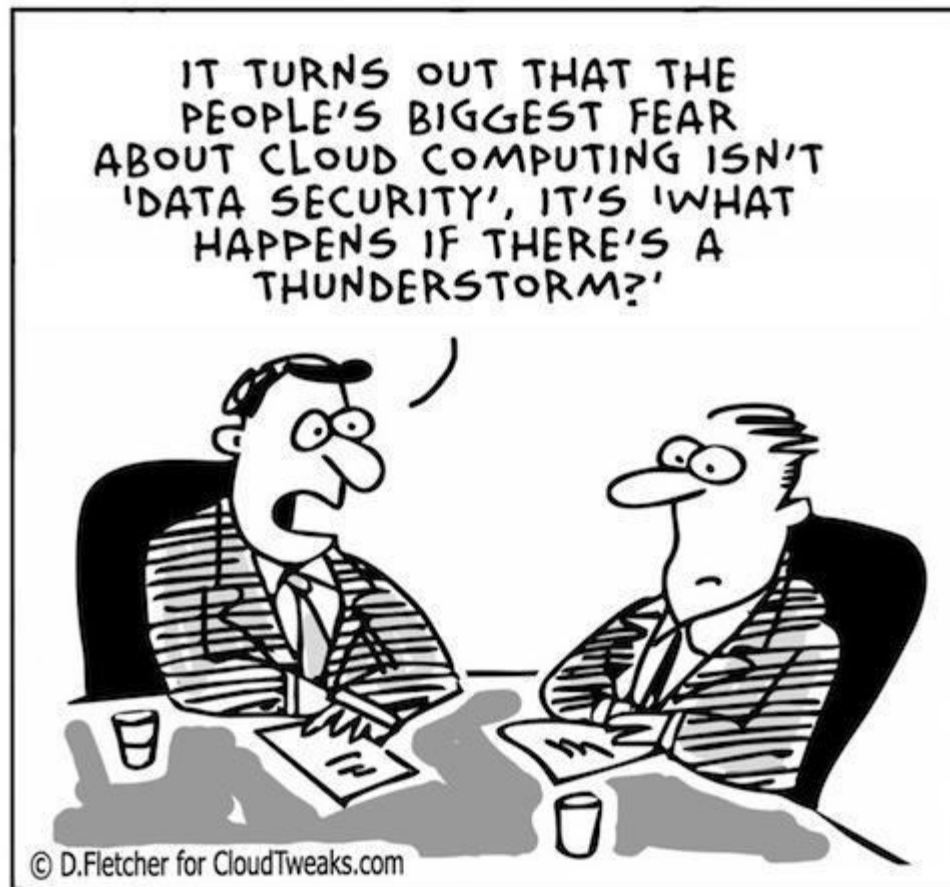
# Agenda for today

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- Quick Recap
- What is cloud?
- What are the things that can be done in cloud?
- Integrating a simple cloud: Thingspeak
- Integrating an advanced cloud: AWS IoT
- Hands-on
- Daily Challenge
- Discussion

# What is Cloud?

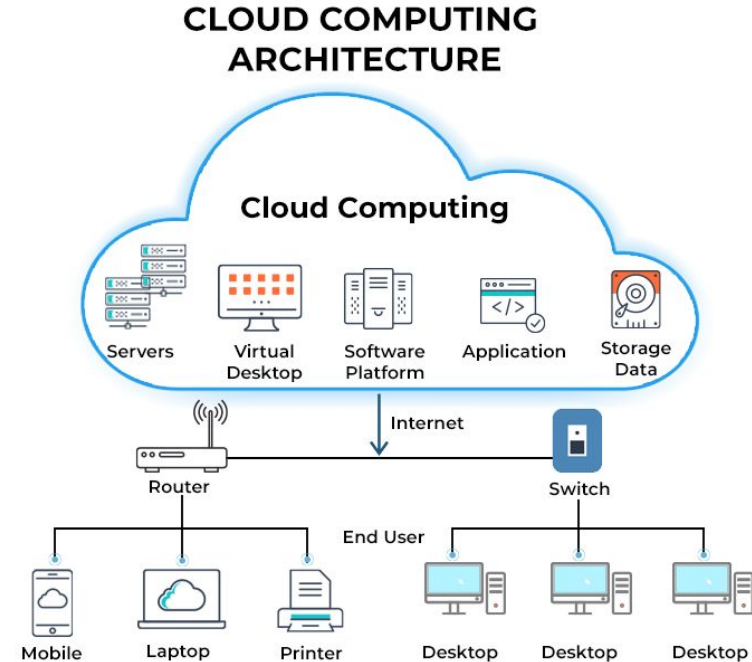
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# What can we do in Cloud?

- Remote Storage
- Virtual computer
- Running Applications
- Data Analysis and Machine learning
- Playing games
- Virtually anything that you do on your computer or mobile



# Integrating a simple cloud: Thingspeak

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# About Thingspeak

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- An IoT service by MathWorks
- Easy to integrate using Rest API (over HTTP), and MQTT
- Very easy to visualize and log data
- You can control devices over cloud as well





# Hands-on: Connect an IoT device to Thingspeak

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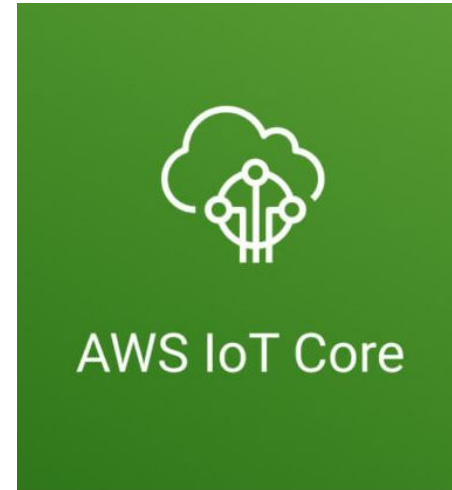
# Integrating an advanced cloud: AWS IoT Core

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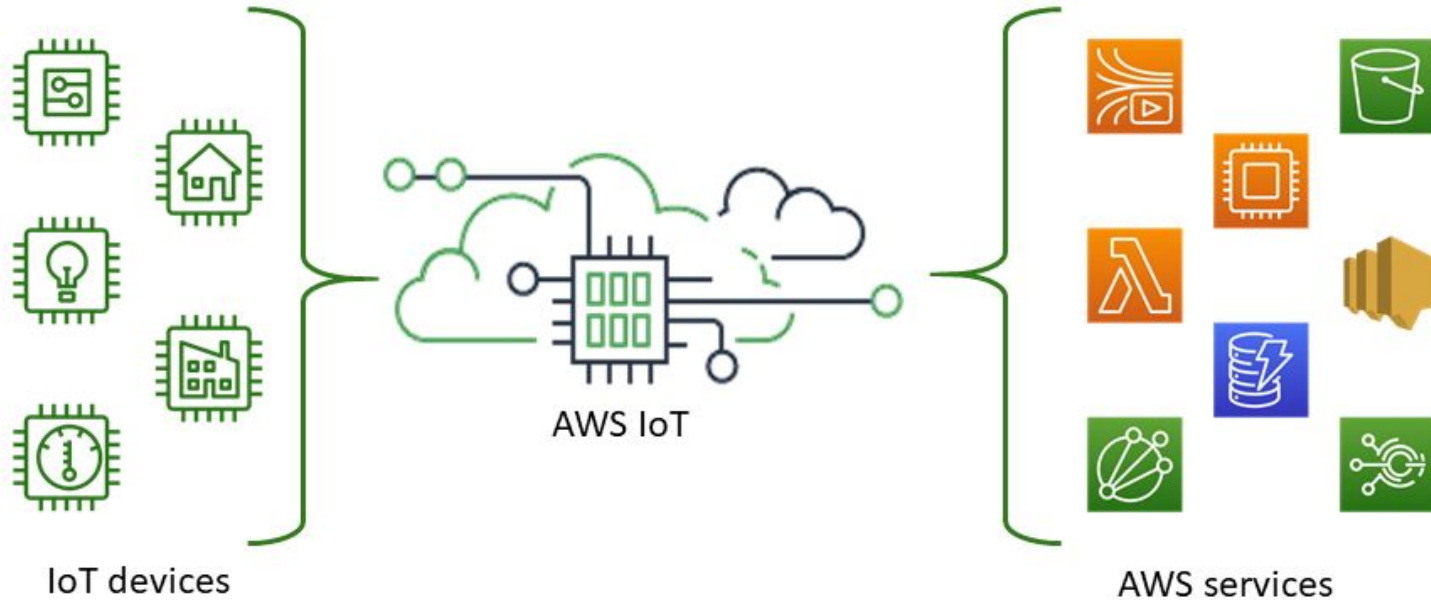
# About AWS IoT Core

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- <https://aws.amazon.com/iot-core/>
- Option to manage, log, and control a fleet of devices
- Easy integration with other AWS services for advanced analytics
- Secure device connections
- ...



# Working of AWS IoT Core



**Source:** <https://docs.aws.amazon.com/iot/latest/developerguide/what-is-aws-iot.html>

# Hands-on: Connect an IoT device to AWS IoT Core

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# Steps to follow

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1. Create an account in AWS
2. Create a policy for the device
3. Create an AWS IoT thing
4. Generate and download device certificate and key
5. Prepare the code and files to be uploaded to the device

## **Clean-up:**

Delete AWS IoT thing and policy when not using. AWS is not free always. You will incur charges if not cleaned up.



*Thank you*



## GROUP VENTURES

